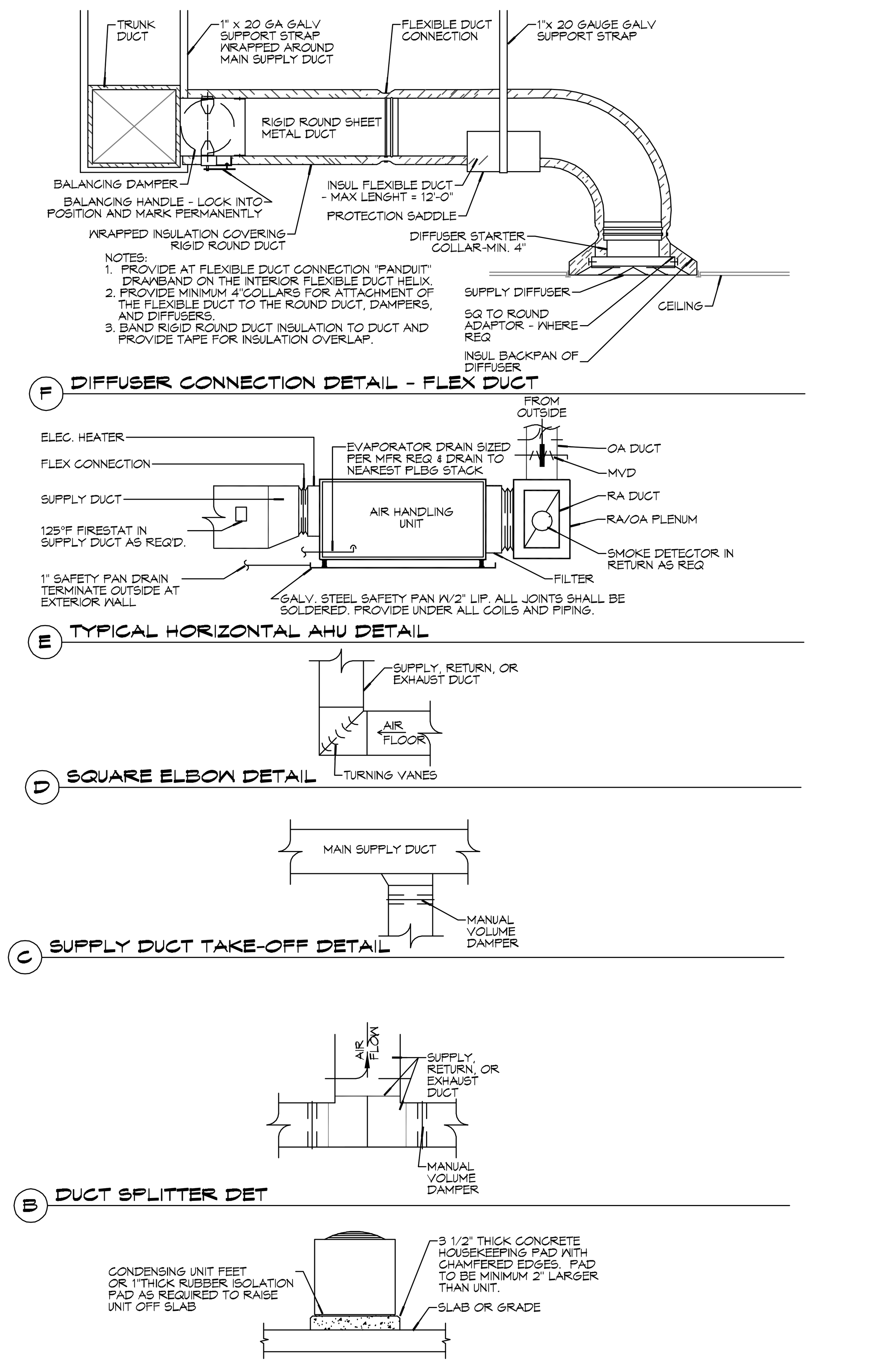
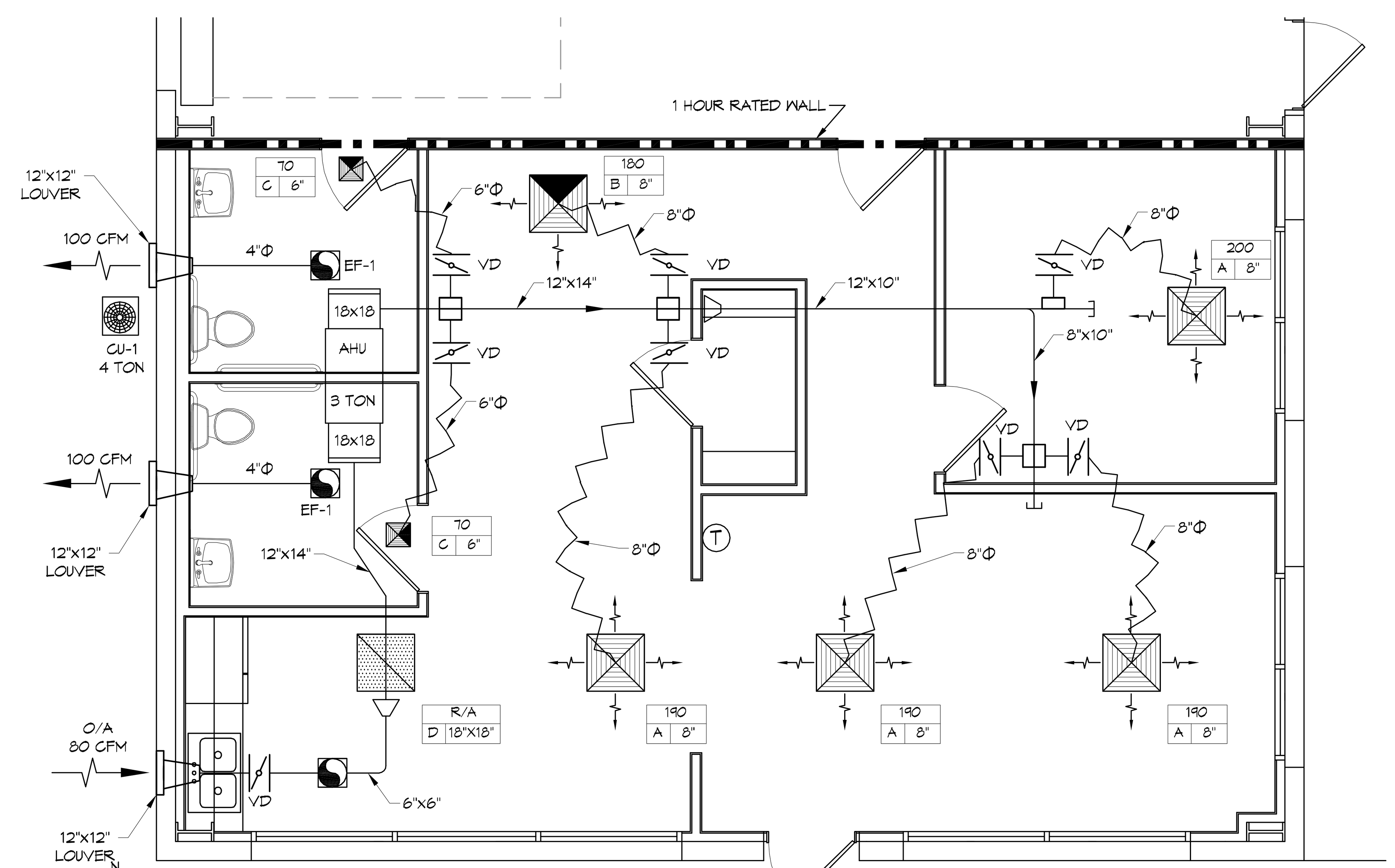


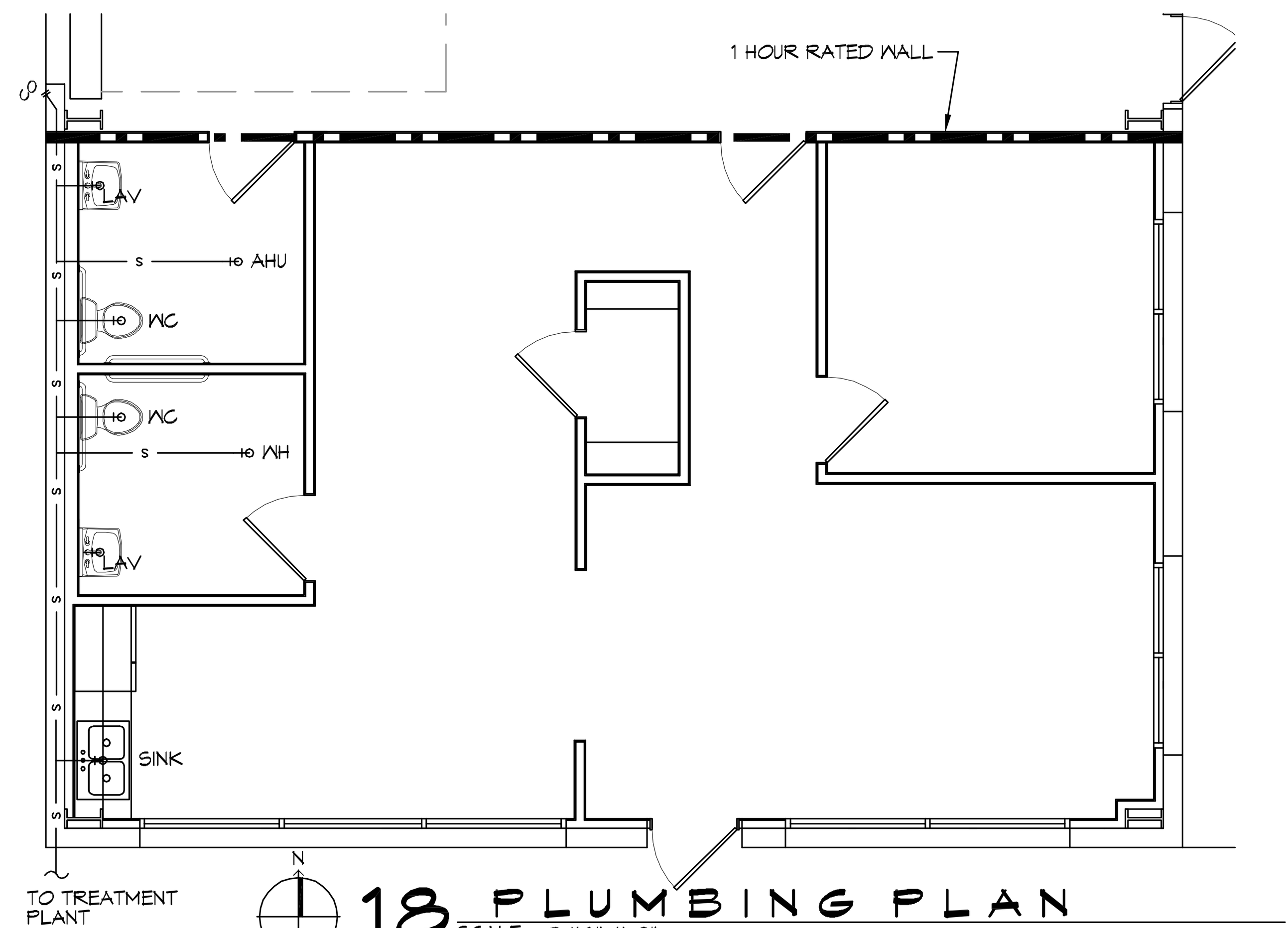
15 DETAILS
SCALE: NTS



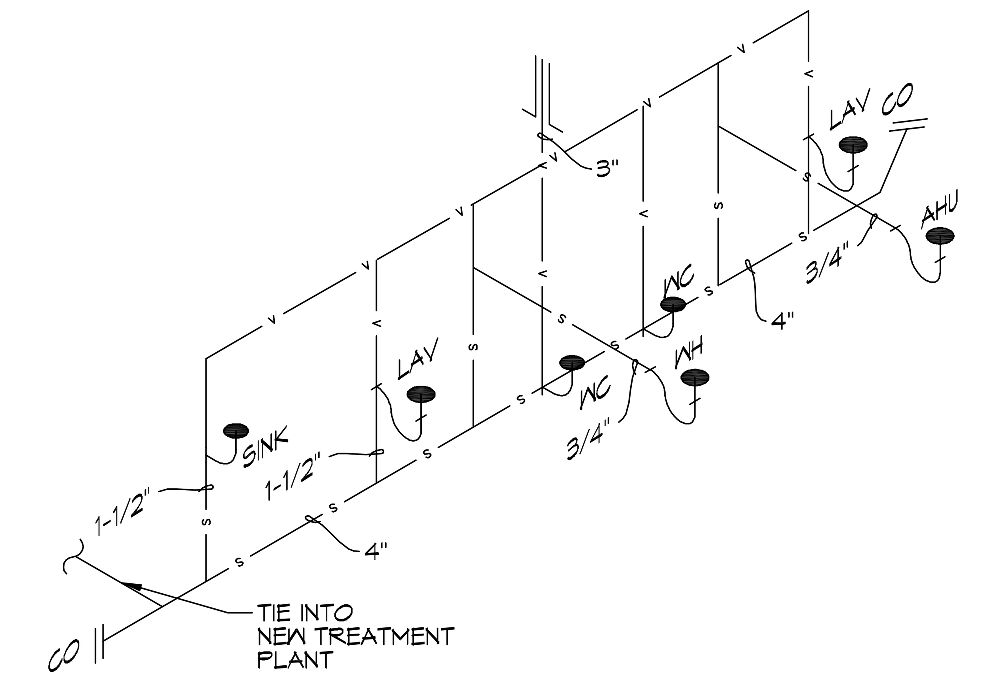
14 MECHANICAL PLAN
SCALE: 1/4"=1'-0"

GENERAL HVAC NOTES

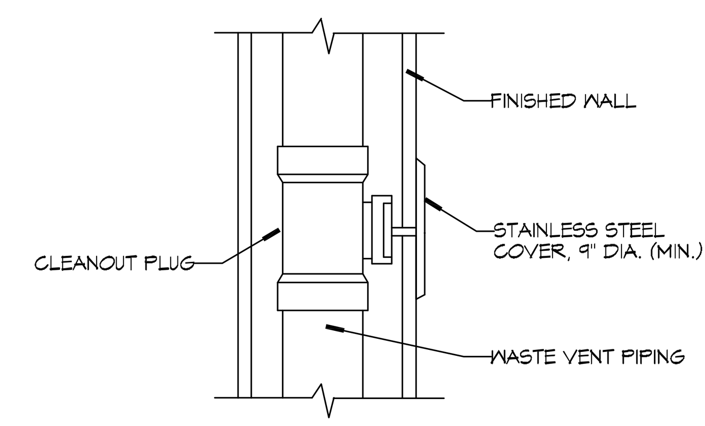
1. CONCEALED DUCTWORK TO BE GALVANIZED SHEET METAL LINED WITH FIBROUS GLASS DUCT LINER, MIN R-6. INSTALLED PER SMACNA STANDARDS.
2. EXPOSED DUCTWORK TO BE GALVANIZED SHEET METAL LINED WITH FIBROUS GLASS DUCT LINER, MIN R-6. INSTALLED PER SMACNA STANDARDS.
3. ROUND FLEXIBLE DUCT TO BE UL-181, CLASS 1, AIR DUCT MATERIALS.
4. DUCT SIZES SHOWN ARE CLEAR INSIDE DIMENSIONS.
5. IN ALL SYSTEMS OVER 2000 CFM AND LESS THAN 15,000 CFM, SMOKE DETECTORS SHALL BE INSTALLED IN ACCORDANCE WITH NFPA 72E IN THE RETURN DUCT DOWNSTREAM OF THE AIR HANDLING UNIT AND ALL FILTERS TO AUTOMATICALLY STOP THE FAN.
6. PROVIDE UL LISTED 125 °F FIRESTAT IN RETURN AIR OF EACH SYSTEM UNDER 2000 CFM TO SHUT DOWN THE FAN IN THE EVENT OF FIRE.
7. PROVIDE UL RATED FIRE DAMPERS WHERE REQUIRED AT ALL DUCT PENETRATIONS OF FIRE-RATED ASSEMBLIES AND WHERE REQUIRED BY CODE, INCLUDING OUTSIDE AIR INTAKES AND EXHAUST FANS.
8. CONDENSATE DRAINS TO BE PVC PIPE RUN TO PLUMBERS P-TRAP WITHIN FIVE FEET OF AIR HANDLING UNITS.
9. ALL AIR HANDLING SYSTEMS TO BE BALANCED TO ASSURE PROPER AIR FLOWS PER PLANS.
10. ALL THERMOSTATS TO BE AUTOMATIC CHANGEOVER WITH HEAT SWITCH.
11. EXHAUST FAN SHALL BE CONTROLLED BY A SWITCH ON THE WALL IN THE SAME LOCATION AS LIGHT SWITCH(S). PROVIDE BACK DRAFT DAMPER.
12. PROVIDE AND INSTALL WATER PROOF GRILLE VENT IN PROPER ROOF LOCATION FOR PLUMBING FIXTURE EXHAUST.
13. ALL SUPPLY AIR VENTS SHALL BE EQUIPPED WITH AIR CONTROL DAMPERS AT THE REGISTER.
14. LOCATE OUTDOOR UNITS AS SHOWN ON ARCHITECTURAL DRAWINGS.
15. REFRIGERANT LINES SHALL BE SIZED BY UNIT MANUFACTURER AND INSTALLED ACCORDING TO MANUFACTURER'S INSTRUCTIONS.
16. FRESH AIR SHALL BE SUPPLIED TO EACH AIR HANDLER THROUGH EXTERIOR WALL DUCT SUPPLIED WITH A CONTROL DAMPER.
17. ALL ELECTRICAL, MECHANICAL, AND PLUMBING PENETRATING FIRE WALLS SHALL BE FIRE CAULKED. (PENETRATIONS THROUGH RATED CONSTRUCTION SHALL BE SEALED WITH A MATERIAL CAPABLE OF PREVENTING THE PASSAGE OF FLAMES AND HOT GASES WHEN TESTED IN ACCORDANCE WITH ASTM-E8-14).
18. ALL MECHANICAL SYMBOLS ARE DRAWN DIAGRAMMATICALLY. CONTRACTOR TO VERIFY WITH OWNER LOCATIONS OF VENTS, DAMPERS, REGISTERS, ETC.
19. FLEXIBLE DUCTWORK LENGTH NOT TO EXCEED 12'-0".
20. REFER TO REFLECTED CEILING PLAN FOR FINAL GRILLE AND DIFFUSER LOCATIONS AND COORDINATE AS REQUIRED.
21. FINAL LOCATION OF TEMPERATURE CONTROLS TO BE COORDINATED WITH OWNER AT JOB SITE.
22. PROVIDE AND INSTALL SMOKE DETECTORS AS APPROVED BY LOCAL AHJ'S. PLACE NEAR R/A AND S/A OPENINGS OF AHU AND PROVIDE, WITH ACCESS PANEL, WIRING BY ELECTRICAL CONTRACTOR.
23. FRESH AIR INTAKES ARE REQUIRED TO HAVE MOTORIZED OR GRAVITY DAMPERS TO SHUT OFF WHEN SYSTEM IS NOT RUNNING.
24. PROVIDE BIRD SCREENS AT ALL EXTERIOR MECHANICAL PENETRATIONS.
25. COORDINATE WALL MOUNTED THERMOSTAT LOCATIONS WITH ALL OWNER FURNISHED ITEMS EITHER WALL MOUNTED OR FLOOR MOUNTED AGAINST PARTITIONS. REFER TO ARCHITECTURAL DRAWINGS.
26. FIELD VERIFY ALL DIMENSIONS AND INTERFERENCES PRIOR TO INSTALLATION OR FABRICATION.
27. PROVIDE MIN 18 GA GALVANIZED SHEET METAL TO BLANK-OFF GABLE VENTS WHERE INTAKE/EXHAUST DUCTS OCCUR.



18 PLUMBING PLAN
SCALE: 3/16"=1'-0"



17 PLUMBING RISER DIAGRAM
SCALE: NTS



B WALL CLEANOUT

16 TYPICAL DETAILS
SCALE: NTS

MISCELLANEOUS PLUMBING

DX SPLIT SYSTEM SCHEDULE

AIR HANDLER												CONDENSER					
TAG	TRANE MODEL NO.	NOMINAL TONS	TOTAL CFM	OA CFM	COOLING (TMBH)	Motor HP	ESP ("WC)	HEAT KW	POWER VAC	POWER PH	POWER MCA	TAG	TRANE MODEL NO.	POWER VAC	POWER PH	POWER MCA	REMARKS
AHU-1	TEM4A0B36S31SB	3	1090	80	34	1/3	0.02	3.6	208	1	24	CU-1	4TTR4036L1000A	208	1	18	1, 2, 3, 4

NOTES:
1 Provide inlet filter box, single point power connection, expansion valve, crankcase heat, time delay relay, condensate overflow switch & programmable 7/24 thermostat with lockable cover.
2 Cooling capacities to be rated in accordance with AHRI standard 210/290 for ASHRAE standard design weather conditions in New Orleans, LA.
3 Install units in accordance with manufacturer's recommendations.
4 Provide new filters after commissioning and final acceptance.

Exhaust Fan Schedule

Tag	Fan Airflow (CFM)	Fan TSP ("wc)	Fan Watts	Fan RPM	Power Volts	Power Phase	Power Hz	Make / Model	Remarks
EF-1	100	0.05	72	2250	120	1	60	Air King BFQ110	1, 2

1. Interlock with light switch
2. Install per Manufacturer's recommendations.

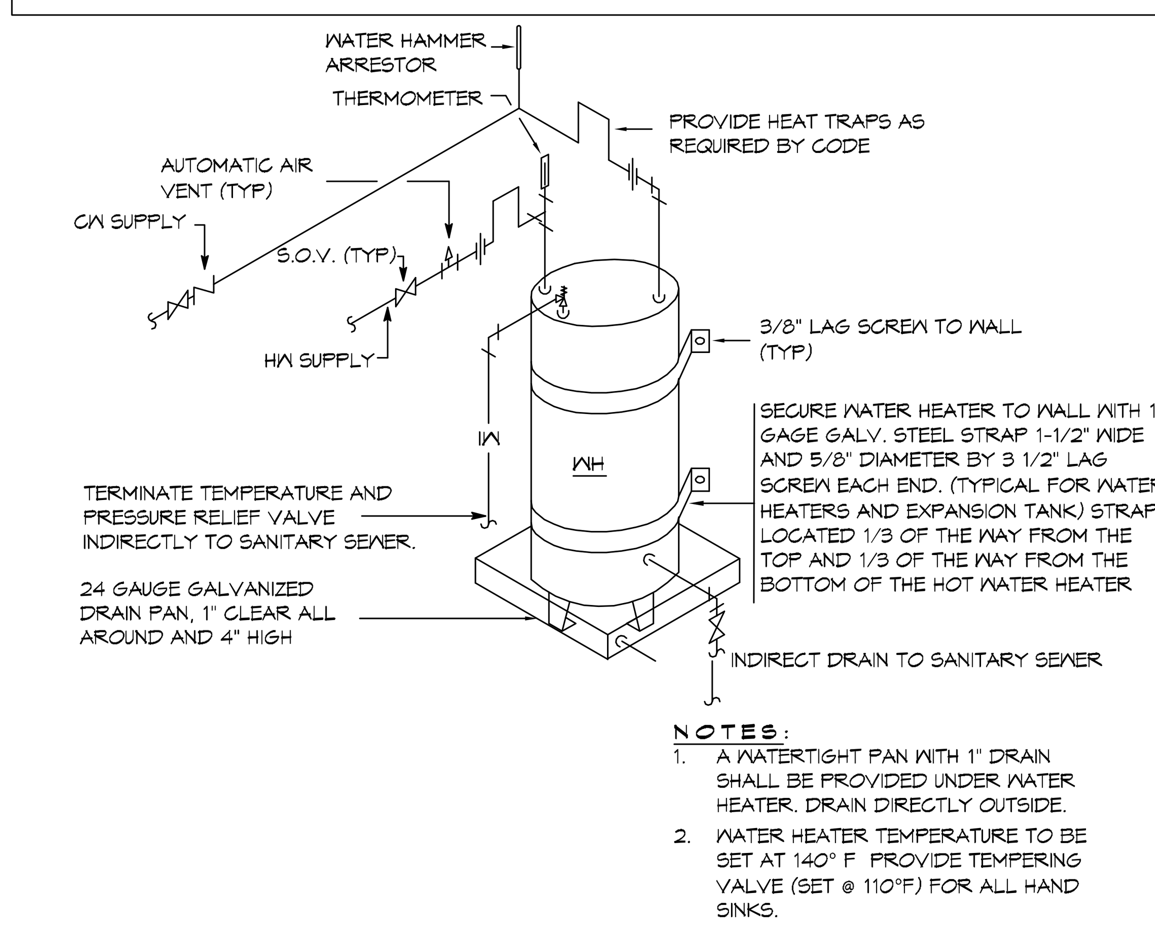
DIFFUSER SCHEDULE

Mark No.	Service	Blow	Neck Size	Description
A	Supply Air	4-Way	Ref. Plan	24""x 24" Square Pattern Plaque, Titus "Omni" or equal
B	Supply Air	3-Way	Ref. Plan	24""x 24" Square Pattern Plaque, Titus "Omni" or equal
C	Supply Air	3-Way	Ref. Plan	12" x 12" fixed pattern plaque, Titus "Omni" or equal
D	Return Air	N/A	Ref. Plan	24" x 24" Perforated Face Return, Titus "PAR" or equal

1. Coordinate with Architect / Owner for colors and finish.

GENERAL PLUMBING NOTES

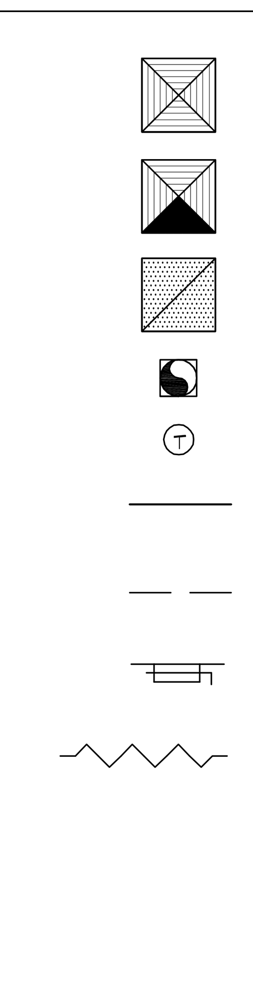
1. PLUMBING LINES SHOWN ARE DRAWN DIAGRAMMATIC IN NATURE AND REPRESENT CONCEPTUAL ROUTING ONLY. CONTRACTOR IS RESPONSIBLE FOR FIELD VERIFICATION OF ALL ACTUAL CONDITIONS.
2. PROVIDE ALL LABOR, MATERIAL, TRANSPORTATION, SUPERVISION, CLEAN-UP, SERVICES, AND EQUIPMENT FOR A COMPLETE OPERATING SYSTEM. THE SYSTEM SHALL INCLUDE HOT AND COLD WATER PIPING, SEWER AND VENT PIPING, INSULATION, WATER HEATER, HANGERS, VALVES, SUPPORTS WITHOUT ANY RESTRICTIONS TO VOLUME. CUT AND PATCH AS REQUIRED TO INSTALL PIPES.
3. ALL WORK AND MATERIAL SHALL CONFORM STRICTLY TO THE LATEST LOCAL CITY, PARISH, STATE AND NATIONAL GOVERNING CODES. MUST MEET LA STATE PLUMBING CODE 2013 REQUIREMENTS.
4. CONTRACTOR IS TO FIELD VERIFY ALL EXISTING UTILITY LOCATIONS, ELEVATIONS AND SIZES PRIOR TO COMMENCING ANY WORK. CONTRACTOR SHALL PAY NECESSARY FEES FOR THE UTILITIES CONNECTIONS.
5. CONTRACTOR IS RESPONSIBLE TO VERIFY THE EXISTING INVERTS AND SET NEW INVERTS OF SEWERAGE AND DRAINAGE PIPES.
6. SEWERAGE LINES 3-INCH AND SMALLER SHALL BE SLOPED 1/4" PER FOOT AND LINES 4-INCH AND LARGER SHALL BE 1/8" PER FOOT.
7. TEST ALL PIPING AT REQUIRED PRESSURE.
8. ALL PLUMBING SHALL BE CLOSELY COORDINATED WITH STRUCTURAL, MECHANICAL SYSTEM AND ELECTRICAL SYSTEMS TO INSURE NO TRADES WILL CONFLICT WITH EACH OTHER.
9. DO NOT SCALE DRAWINGS. SEE ARCHITECTURAL DRAWINGS FOR EXACT LOCATIONS OF DOORS, WINDOWS, WALLS, FIXTURES, ETC.
10. ALL WATER MAINS AND PIPING NOT SHOWN FOR CLARITY, ALL LOCATIONS FIELD VERIFIED.
11. DOMESTIC HOT AND COLD WATER PIPING AND FITTINGS UNDER SLAB SHALL BE ASTM B88 COPPER WATER TUBE, TYPE K, SOFT ANNEALED. NO JOINTS SHALL BE ALLOWED UNDER THE SLAB.
12. DOMESTIC WATER PIPING AND FITTINGS ABOVE THE SLAB SHALL BE ASTM B88 COPPER WATERTUBE, TYPE L. HARD DRAWN WITH COPPER PRESSURE TYPE FITTINGS, ANSI B16.22. THE JOINTS SHALL BE SOLDERED TYPE USING ASTM B32, ALLOY GRADE 95A (95-5) SOLDER.
13. SOIL, WASTE, VENT PIPING AND FITTINGS ABOVE THE SLAB SHALL BE SERVICE WEIGHT CAST IRON PIPE WITH BELL AND SPIGOT ENDS AND ONE PIECE NEOPRENE INSERT TYPE GASKET. USE PVC SCHEDULE 40 OR ABS DWV PIPES AND FITTINGS WHERE PERMITTED BY CODE.
14. ALL WATER PIPING AND FITTINGS ABOVE THE FLOOR SHALL BE INSULATED WITH 1/2" THICK FIBERGLASS INSULATION AND JACKET.
15. ALL ELECTRICAL, MECHANICAL AND PLUMBING ELEMENTS PENETRATING FIRE PARTITIONS SHALL BE FIRE CAULKED. (PENETRATIONS THROUGH RATED CONSTRUCTION SHALL BE SEALED WITH A MATERIAL CAPABLE OF PREVENTING THE PASSAGE OF FLAMES AND HOT GASES WHEN TESTED IN ACCORDANCE WITH ASTM-E814.)
16. SEE ROOF PLAN FOR PLUMBING ROOF PENETRATIONS. ROUTE VENT PIPES IN ATTIC AS NECESSARY.
17. ALL VENTS THROUGH ROOF (VTR) SHALL BE LOCATED A MINIMUM OF 10'-0"FROM ANY MECHANICAL OR NATURAL AIR INTAKE.



NOTES:
1. A WATERTIGHT PAN WITH 1" DRAIN SHALL BE PROVIDED UNDER WATER HEATER. DRAIN DIRECTLY OUTSIDE.
2. WATER HEATER TEMPERATURE TO BE SET AT 140° F PROVIDE TEMPERING VALVE (SET @ 110°F) FOR ALL HAND SINKS.

A WATER HEATER

LEGEND



- 4-WAY SUPPLY AIR GRILLE
- 3-WAY BLOW GRILLE
- RETURN AIR GRILLE
- EXHAUST FAN
- THERMOSTAT
- SUPPLY AIR DUCT
- RETURN AIR DUCT
- DAMPER CONTROL
- ROUND FLEX DUCT, MAX. LENGTH 12'-0", MIN. R-6. PROVIDE MAN. DAMPER AT DIFFUSER CONNECTIONS, DUCT SIZE AS FOLLOWS:
  250 CFM TO 350 CFM = 9"
  200 CFM TO 250 CFM = 8"
  150 CFM TO 200 CFM = 7"
  100 CFM TO 150 CFM = 6"

DAMMON ENGINEERING, INC.
LOUISIANA & MISSISSIPPI

Chief Engineer: Brian Mistich, PE
554 Old Spanish Trail
Slidell, LA 70458
www.dammonengineering.com
info@dammonengineering.com
PH: 985.649.5832

REVISIONS

#	DESCRIPTION	DATE

SEAL: STATE OF LOUISIANA — BRIAN A. MISTICH — License No. 30187 — PROFESSIONAL ENGINEER

OFFICE WAREHOUSE RENOVATION

SURGI INVESTMENTS

38255
COAST BLVD.
SLIDELL, LA

JOB No: 2395	DATE: 08-14-2019
DRAWN BY: CKD	CHECKED BY: BAM

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SHEET TITLE:
MECHANICAL AND PLUMBING PLAN

DRAWING NUMBER:
M/P 100